

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the instant application:

**Listing of Claims:**

1. (Currently Amended) A self-calibrating imaging display system comprising:  
a display having a screen;  
a display adaptor communicatively linked the display for causing the display to display upon the screen a test pattern;

a plurality of photosensors integrated with said screen, said photosensors detecting luminance values correlating to distinct luminance levels at different regions of said screen;

a calibration module, said calibration module directing the display adaptor to generate at least one measurement field comprising a region spanning no more than 10% of the screen and cause the measurement field to be stepped through a sequence of values from zero and increasing at each step up to a maximum display driving level (DDL), said calibration module receiving from said photosensors inputs correlating to said luminance values, said calibration module determining a plurality of luminance correction factors, different ones of said luminance correction factors being applied to different regions of said screen which are applied to adjust luminance of said screen at the different regions, each region spanned by a corresponding measurement field.

2. (Previously Presented) The self-calibrating imaging display system of claim 1, wherein said plurality of sensors comprises an array of photosensors.

3. (Previously Presented) The self-calibrating imaging display system of claim 2, wherein said array of photosensors comprises photosensors horizontally and vertically dispersed over a portion of said screen.
4. (Previously Presented) The self-calibrating imaging display system of claim 3, wherein said portion is a region comprising at least 90% of a surface area of said screen.
5. (Previously Presented) The self-calibrating imaging display system of claim 1, wherein said photosensors are formed into said screen.
6. (Canceled)
7. (Cancelled)
8. (Cancelled)
9. (Previously Presented) The self-calibrating imaging display system of claim 1, wherein said calibration module automatically updates said luminance correction factor at predetermined intervals.
10. (Previously Presented) The self-calibrating imaging display system of claim 1, wherein said calibration module updates said luminance correction factor at said different regions responsive to a user input.
11. (Previously Presented) The self-calibrating imaging display system of claim 1, said calibration module generating a calibration record upon an update of said luminance correction factor.

12. (Previously Presented) The self-calibrating imaging display system of claim 1, wherein said imaging display is a medical imaging display.

13. (Currently Amended) A self-calibrating imaging display system comprising:  
a display having a screen;  
a display adaptor communicatively linked the display for causing the display to display upon the screen a test pattern;

a plurality of photosensors integrated with said screen, said photosensors detecting color values correlating to distinct color levels at different regions of said screen

a calibration module, said calibration module directing the display adaptor to generate at least one measurement field comprising a region spanning no more than 10% of the screen and cause the measurement field to be stepped through a sequence of values from zero and increasing at each step up to a maximum display driving level (DDL), said calibration module receiving from said photosensors inputs correlating to said color levels, said calibration module determining a plurality of correction factors, different ones of said correction factors being applied to different regions of said screen which are applied to adjust color levels at different regions of said screen, each region spanned by a corresponding measurement field.

14. (Previously Presented) The self-calibrating imaging display system of claim 13, wherein said plurality of sensors comprises an array of photosensors.

15. (Currently Amended) A method of calibrating an imaging display system comprising the steps of:

generating at least one measurement field comprising a region spanning no more than 10% of a display screen of the imaging display system and causing the measurement

field to be stepped through a sequence of values from zero and increasing at each step up to a maximum display driving level (DDL);

receiving luminance values from a plurality of photosensors integrated with a ~~screen of a~~ the display screen, said photosensors detecting distinct luminance levels at different regions of said screen; and

from said detected luminance levels, determining a plurality of luminance correction factors which are applied to different regions of said screen so as to adjust luminance of said screen at the different regions, each region spanned by a corresponding measurement field.

16. (Previously Presented) The method of calibrating an imaging display system according to claim 15, wherein said at plurality of sensors comprises an array of photosensors.

17. (Previously Presented) The method of calibrating an imaging display system according to claim 16, wherein said array of photosensors comprises photosensors horizontally and vertically dispersed over said screen.

18. (Previously Presented) The method of calibrating an imaging display system according to claim 17, wherein said portion is a region of said screen comprising at least 90% of a surface area of said screen.

19. (Cancelled)

20. (Original) The method of calibrating an imaging display system according to claim 15, further comprising the step of automatically updating said luminance correction factor at predetermined intervals.

21. (Previously Presented) The method of calibrating an imaging display system according to claim 15, further comprising the step of updating said luminance correction factor at said different regions responsive to a user input.

22. (Original) The method of calibrating an imaging display system according to claim 15, further comprising the step of generating a calibration record upon an update of said luminance correction factor.

23. (Currently Amended) A method of calibrating an imaging display system comprising the steps of:

generating at least one measurement field comprising a region spanning no more than 10% of a display screen of the imaging display system and causing the measurement field to be stepped through a sequence of values from zero and increasing at each step up to a maximum display driving level (DDL);

receiving distinct color values from a plurality of photosensors integrated with a ~~screen of a~~ the display screen, said photosensors detecting color levels at different regions of said screen; and

from said detected color levels, determining a plurality of luminance correction factors which are applied to different regions of said screen so as to adjust color levels of said screen at the different regions, each region spanned by a corresponding measurement field.

24. (Previously Presented) The method of calibrating an imaging display system according to claim 23, wherein said plurality of photosensors comprises an array of photosensors.

25. (Currently Amended) A machine-readable storage having stored thereon a computer program having a plurality of code sections, the code sections executable by a machine for causing the machine to perform the steps of:

generating at least one measurement field comprising a region spanning no more than 10% of a display screen of the imaging display system and causing the measurement field to be stepped through a sequence of values from zero and increasing at each step up to a maximum display driving level (DDL);

receiving luminance values from a plurality of photosensors integrated with a ~~screen of a~~ the display screen, said photosensors detecting distinct luminance levels at different regions of said screen; and

from said detected luminance levels, determining a plurality of luminance correction factors which are applied to different regions of said screen so as to adjust luminance of said screen at the different regions, each region spanned by a corresponding measurement field.

26. (Previously Presented) The machine-readable storage of claim 25, wherein said plurality of photosensors comprises an array of photosensors.

27. (Previously Presented) The machine-readable storage of claim 26, wherein said array of photosensors comprises photosensors horizontally and vertically dispersed over a portion of said screen.

28. (Previously Presented) The machine-readable storage of claim 27, wherein said portion is a region of said screen comprising at least 90% of a surface area of said screen.

29. (Cancelled)

30. (Original) The machine-readable storage of claim 25, further comprising the step of automatically updating said luminance correction factor at predetermined intervals.

31. (Previously Presented) The machine-readable storage of claim 25, further comprising the step of updating said luminance correction factor at said different regions responsive to a user input on said screen at said different regions.

32. (Previously Presented) The machine-readable storage of claim 25, further comprising the step of generating a calibration record upon an update of said luminance correction factor.